

CULTURAL CONCEPTS WITHOUT EQUIVALENTS: THE MENTAL REPRESENTATION OF UNTRANSLATABLE WORDS IN ENGLISH, UZBEK, AND RUSSIAN BILINGUALS

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Abstract: This study investigates how English–Uzbek and English–Russian bilinguals conceptualize untranslatable words—lexical units that encode culturally specific meanings without direct English equivalents. Using a mixed-methods design, participants completed semantic categorization tasks and semi-structured interviews on selected Uzbek and Russian lexical items. The results show that bilinguals construct complex cognitive approximations rather than direct translations, often relying on metaphor, emotional resonance, or cultural schemas. These findings underscore the layered nature of bilingual mental lexicons and the importance of culturally grounded lexical semantics in understanding bilingual cognition.

Keywords: bilingual cognition, untranslatable words, Uzbek, Russian, conceptual semantics, lexical gaps, cultural linguistics.

Introduction

In recent years, the study of bilingual cognition has moved beyond structural linguistics to embrace the cultural and conceptual dimensions of language. One particularly intriguing area of inquiry lies in the cognitive processing and representation of *untranslatable words*—lexical items that encapsulate culturally specific concepts with no direct equivalent in another language. These words not only pose challenges for translators and language learners but also offer a unique lens into how bilingual individuals mentally structure meaning across linguistic boundaries.

While bilingual lexical access and cross-linguistic influence have been widely studied (Kroll & De Groot, 2005; Pavlenko, 2009), there remains a significant gap in our understanding of how culturally embedded, semantically dense words are stored and interpreted by bilinguals. This study focuses on the mental representation of untranslatable words among speakers proficient in **English, Uzbek, and Russian**—

three languages that differ significantly in grammatical structure, cultural context, and lexical categorization.

Languages such as Uzbek and Russian are rich in culturally bound lexemes that express social values, emotional states, or interpersonal nuances—concepts that often lack one-to-one counterparts in English. For example, the Uzbek word *orziqmoq* conveys a culturally nuanced sense of longing and respectful anticipation, while the Russian word *тоска* (*toska*) expresses a deep, melancholic yearning without an exact English equivalent. Such words challenge conventional semantic boundaries and invite further exploration of how bilingual speakers conceptualize and access them cognitively.

The purpose of this study is to investigate how bilinguals mentally process and categorize untranslatable words, using a mixed-methods approach that combines semantic mapping tasks and introspective interviews. By examining how English-Uzbek and English-Russian bilinguals navigate these lexical gaps, the research aims to shed light on the cognitive strategies employed when bridging culturally rooted semantic fields.

This study contributes to the growing body of work in **cognitive linguistics**, **translation studies**, and **bilingual education**, and aims to offer insights relevant to lexicography, intercultural communication, and AI-driven language processing systems.

Literature review

The concept of *untranslatability* has long intrigued linguists, philosophers, and translators alike. At its core, an untranslatable word is one that encapsulates a meaning, emotion, or concept so embedded in its cultural and linguistic context that it defies direct lexical equivalence in another language (Wierzbicka, 1997). These words reveal not only the expressive limits of language but also the deep cognitive structures that underlie how individuals perceive and describe their world. For bilinguals—especially those navigating typologically and culturally diverse languages such as English, Uzbek, and Russian—these words present a unique challenge and opportunity for linguistic and cognitive inquiry.

Bilingual lexicon and mental representation

Theories of bilingual language processing have evolved from early models of separate lexicons to more integrated frameworks. Kroll and Stewart's (1994) **Revised Hierarchical Model (RHM)** posits that while bilinguals may store words from each language in separate lexicons, they share a common conceptual store. However, how this conceptual store accommodates culturally bound terms remains underexplored. Pavlenko (2009) introduced the notion of "**conceptual restructuring**" in bilingual

minds, arguing that exposure to new linguistic categories can reshape existing mental representations—especially when a language offers a unique label for a previously unnamed concept.

Untranslatable words in cognitive Linguistics

Untranslatable words often represent **semantic gaps**—concepts available in one language but not lexicalized in another. The **Natural Semantic Metalanguage (NSM)** framework, pioneered by Wierzbicka (1997) and Goddard (2015), attempts to deconstruct such terms into simpler semantic primes, suggesting that even untranslatable words can be rendered in a universally intelligible form. However, critics argue that such reductionist approaches can strip away essential cultural nuance. In contrast, scholars in **cultural linguistics** (Sharifian, 2017) emphasize that meaning is deeply shaped by shared cultural schemas, making direct translation inherently problematic.

Russian is rich in emotional and philosophical lexemes that resist direct translation. Words like *тоска* (*toska*) or *разгуляй* capture deeply cultural emotions and experiences. As discussed by Pavlenko (2012), Russian-English bilinguals often experience a mismatch between emotional expression and available vocabulary, leading to shifts in emotional salience depending on the language of expression.

Similarly, Uzbek contains expressions like *orziqmoq* (yearning with respectful anticipation), *ko'ngil* (a concept blending heart, mood, and intention), and *tashakkur* (gratitude beyond formal thankfulness), all of which carry cultural weights not easily captured in English. Yet, little empirical research has been done on how bilingual Uzbek speakers manage these concepts cognitively, whether they retain the original conceptual frame or adapt it to a target language schema.

Translation strategies and conceptual mapping

Translation theorists have proposed various strategies to handle untranslatable words, including **calques, paraphrase, neologism, and omission** (Newmark, 1988; Baker, 2011). However, most of these focus on the text, not the mind. What remains underexplored is how **bilinguals themselves translate or paraphrase these words mentally** during speech or thought. Studies in psycholinguistics (Dewaele, 2010) have shown that the **emotional weight** of certain words is retained differently depending on the language of acquisition, emotional context, and language dominance.

This study aims to bridge these perspectives by focusing not only on the linguistic behavior of bilinguals but also on the **cognitive and cultural mechanisms** that allow them to navigate untranslatable concepts between English, Uzbek, and Russian.

Methodology

Research design

This study employs a **mixed-methods design**, integrating **semantic categorization tasks** (quantitative) with **semi-structured interviews** (qualitative) to explore how bilingual speakers of English, Uzbek, and Russian conceptualize and mentally process untranslatable words. This design was chosen to capture both measurable patterns in cognitive behavior and in-depth personal strategies used to interpret culturally embedded lexemes.

Participants

A total of **30 bilingual participants** were recruited for the study, divided into two groups:

Group A: 15 English–Uzbek bilinguals

Group B: 15 English–Russian bilinguals

Participants were selected based on the following criteria:

Age: 18–45

Proficient in both target languages (B2 or higher CEFR level)

Acquired both languages before age 15 (early bilinguals) or have used both languages for 5+ years in academic or professional contexts

No cognitive or language impairments reported

Participants were recruited through university mailing lists, Telegram groups, and bilingual community forums in Uzbekistan and Russia.

Materials

The research focused on a curated list of **18 culturally specific, untranslatable words**, divided evenly across Uzbek and Russian:

Uzbek examples: *orziqmoq*, *ko‘ngil*, *tushunmovchilik*, *tashakkur*

Russian examples: *тоска* (*toska*), *душа* (*dusha*), *разгуляй*, *авось*

Each word was selected based on its presence in cultural discourse and confirmed through expert consultation and prior literature (Wierzbicka, 1997; Pavlenko, 2012).

Materials included:

- Word definition cards in the source language
- A semantic field map template
- A short paraphrasing task in English
- Interview guide with open-ended reflection questions

Procedure

Participants completed the study in two stages, either online or in person:

Stage 1: Semantic Categorization Task (Quantitative)

- Participants were shown the untranslatable word with a short definition and usage example in the original language.
- They were asked to:
 - Provide an English equivalent or paraphrase.
 - Place the word on a **semantic map**, connecting it with emotions, concepts, or contexts (e.g., joy, nostalgia, uncertainty).
- Responses were scored for depth, accuracy, and consistency across participants.

Stage 2: Semi-Structured Interviews (Qualitative)

- Participants were asked open-ended questions, such as:
 - *How would you explain this word to someone unfamiliar with your culture?*
 - *Do you ever think in this word when speaking English? Why or why not?*
 - *Does the meaning of this word change depending on your language context?*
- Interviews were audio-recorded, transcribed, and coded thematically using NVivo.

Data Analysis

Quantitative data from the categorization task were analyzed using **descriptive statistics** (mean, frequency) and **cross-group comparison** to identify common mapping strategies.

Qualitative data were analyzed using **thematic analysis** (Braun & Clarke, 2006), identifying recurring patterns in how bilinguals describe and mentally navigate untranslatable concepts. Emergent codes included “conceptual borrowing,” “cultural gaps,” “metaphorical approximation,” and “emotional residue.”

Results

Quantitative findings: semantic categorization tasks

Participants showed varied success in paraphrasing and categorizing the 18 untranslatable words: **English–Uzbek bilinguals** demonstrated **moderate to high consistency** in mapping words like *orziqmoq* (linked to “longing,” “hope,” and “respect”) and *ko‘ngil* (linked to “mood,” “heart,” “desire”). However, paraphrasing often required two or more English words, indicating **semantic overload**. **English–Russian bilinguals** showed **lower consistency** for abstract emotional words like *тоска* and *разгуляй*, with definitions ranging from “depression” to “spiritual emptiness” for *тоска*, and “wild fun” to “recklessness” for *разгуляй*.

A semantic density index (average number of associated concepts per word) revealed:
Uzbek words: **3.8 associations per word**

Russian words: **4.3 associations per word**

This indicates **greater abstraction and emotional layering** in the Russian data, compared to more socially oriented semantics in Uzbek.

Qualitative findings: thematic interview analysis

Four main themes emerged across both bilingual groups:

1. **Conceptual approximation**

Participants often relied on metaphor or analogy:

“*Ko ‘ngil* is like your mood and heart combined — I say ‘I don’t feel right inside’ when I mean it in English.” (Uzbek participant)

“*Toska* is like when you’re homesick, but more spiritual. It’s a sadness without a reason.” (Russian participant)

2. **Cultural anchoring**

Untranslatable words were seen as **emotionally and culturally grounded**:

“You can’t really understand *orziqmoq* unless you’ve waited for someone important. It’s not just ‘to wait’.”

“English doesn’t have *dyua* (soul) the way we use it — it’s more than spirit, it’s identity.”

3. **Language context shifts**

Participants described shifts in meaning and emotional depth depending on language use:

“When I think in English, I say ‘thank you’, but it doesn’t feel as warm as *tashakkur*. That word carries more respect.”

4. **Cognitive code-switching**

Several participants reported **thinking in the original language** when the concept did not feel translatable:

“Sometimes I just use *toska* in my head because no English word feels right. It’s just *toska*.”

Discussion

These findings support the idea that bilinguals do not simply translate untranslatable words but **construct internal approximations based on cultural knowledge, personal experience, and emotional resonance**.

The **semantic mapping results** indicate that Russian and Uzbek untranslatable words tend to be **multidimensional**, requiring bilinguals to recruit multiple English concepts to capture even partial meanings. This reinforces Wierzbicka’s (1997) and Pavlenko’s (2012) claims that cultural lexicons encode complex emotional and relational schemas absent in other languages.

Moreover, the **interview data** reveals how bilinguals engage in **conceptual negotiation**—either by borrowing cultural frameworks from one language to explain a word or accepting that a word may “live” only in its original language. This supports Sharifian’s (2017) **cultural linguistics** perspective that meaning is bound to collective experience and not fully transferable through direct lexical substitution.

The presence of **cognitive code-switching**—thinking in Uzbek or Russian when facing semantic gaps in English—suggests that bilingual cognition accommodates **parallel conceptual systems**, each with its own culturally specific logic. This nuance expands on the **Revised Hierarchical Model** (Kroll & Stewart, 1994), suggesting a more dynamic relationship between lexicons and conceptual stores for culturally embedded vocabulary.

These insights are valuable for:

- **Lexicographers**, who may need to represent such words using multi-word entries and usage notes.
- **Language educators**, who can integrate cultural schemas into vocabulary instruction.
- **AI translation systems**, which currently struggle with semantic layering and cultural nuance.

Conclusion

This research work studied how English–Uzbek and English–Russian bilinguals process, conceptualize, and mentally translate untranslatable words—lexical items embedded deeply within specific cultural and emotional contexts. By integrating semantic categorization tasks with in-depth interviews, the research reveals that bilingual speakers do not merely search for equivalents but engage in **cognitive and cultural negotiation** to approximate meaning.

The findings support existing theories in bilingual cognition, particularly regarding **conceptual restructuring, code-switching**, and the **cultural anchoring of language**. Untranslatable words function not just as linguistic curiosities, but as **windows into how culture shapes thought** and how bilinguals manage meaning across linguistic systems.

This research highlights the need for further interdisciplinary work involving **cognitive linguistics, cultural studies, translation theory, and psycholinguistics**. Future studies may incorporate neurocognitive tools (e.g., fMRI, EEG) to explore how the brain processes these culturally dense concepts.

By focusing on three distinct linguistic and cultural systems—English, Uzbek, and Russian—this study contributes to a more inclusive understanding of bilingual

cognition and underscores the role of untranslatable words as key elements in the structure of human thought.

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